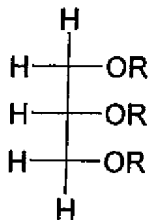


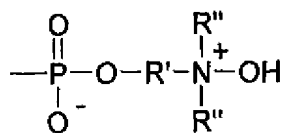
CLAIMS

1. An aqueous hydraulic fluid comprising, in addition to water, at least one phospholipid lubricant, wherein the hydraulic fluid comprises less than 20% by weight of an oil selected from a mineral oil, a synthetic hydrocarbon oil or any mixture thereof.
2. An aqueous hydraulic fluid as claimed in Claim 1 comprising water in an amount at least substantially 10% wt of the total weight of the hydraulic fluid.
3. An aqueous hydraulic fluid as claimed in Claim 1 or 2 comprising water in an amount of no more than substantially 95% wt of the total weight of the hydraulic fluid.
4. An aqueous hydraulic fluid as claimed in any preceding claim wherein the phospholipid lubricant comprises a phosphatide, especially having a structure



wherein at least one R is a phosphorus containing group having the structure

(46)



and at least one R is a fatty acyl group; and

wherein R' is independently an alkyl group preferably  
 5 independently having from 1 to 12 carbon atoms and R''  
 is an alkyl group preferably independently having from  
 1 to 8 carbon atoms, more preferably from 1 to 4  
 carbon atoms.

3 5. An aqueous hydraulic fluid as claimed in Claim 4  
 10 wherein one R group is a phosphorus containing group  
 and two R groups are fatty acyl groups.

3 X An aqueous hydraulic fluid as claimed in Claim 4 ~~or 5~~  
 comprising at least one phosphatide selected from  
 phosphatidylcholine, phosphatidylinositol,  
 15 phosphatidylserine and phosphatidylethanolamine.

2 X An aqueous hydraulic fluid as claimed in any preceding  
 claim comprising more than one phospholipid.

2 8. An aqueous hydraulic fluid as claimed in Claim 7  
 wherein the hydraulic fluid comprises  
 20 phosphatidylcholine, phosphatidylinositol and  
 phosphatidylethanolamine.

3 9. An aqueous hydraulic fluid as claimed in any preceding  
 claim wherein the total concentration of the or all of  
 the phospholipid lubricants comprises at least  
 25 substantially 0.1% wt of the total weight of the  
 hydraulic fluid.

- 3 10. An aqueous hydraulic fluid as claimed in any preceding claim wherein the total concentration of the or all of the phospholipid lubricants comprises no more than substantially 30% wt of the total weight of the hydraulic fluid.  
5
- 3 11. An aqueous hydraulic fluid as claimed in any preceding claim comprising a plant-derived lecithin comprising a mixture of phosphatides and/or phospholipids.
- 3 10 12. An aqueous hydraulic fluid as claimed in Claim 11 wherein the plant-derived lecithin is selected from soybean lecithin, castor lecithin, rapeseed lecithin, cottonseed lecithin and mixtures thereof.
- 3 15 13. An aqueous hydraulic fluid as claimed in Claim 12 wherein the plant-derived lecithin is soybean lecithin.
- 1 14. An aqueous hydraulic fluid as claimed in any one of Claims 11 to 13 wherein the plant-derived lecithin comprises at least 1% wt of the total weight of hydraulic fluid.
- 3 20 15. An aqueous hydraulic fluid as claimed in any preceding claim wherein the or each phospholipid, or mixture of phospholipids is substantially the sole lubricant in the hydraulic fluid.
- 3 25 16. An aqueous hydraulic fluid as claimed in any preceding claim further comprising at least one corrosion inhibitor.
- 3 17. An aqueous hydraulic fluid as claimed in Claim 16 wherein the corrosion inhibitor comprises an alkylamine or alkanolamine.

- 3 18. An aqueous hydraulic fluid as claimed in any preceding claim further comprising an anti-freeze additive.
- 3 19. An aqueous hydraulic fluid as claimed in Claim 18  
5 wherein the anti-freeze additive is selected from a glycol compound, glycerol, or a glycerol ester.
- 3 20. An aqueous hydraulic fluid as claimed in any preceding claim comprising less than 10% wt of a mineral oil, synthetic hydrocarbon oil or mixture thereof.
- 3 21. An aqueous hydraulic fluid as claimed in Claim 20  
10 comprising less than 1% wt of a mineral oil, synthetic hydrocarbon oil or mixture thereof.
- 3 22. An aqueous hydraulic fluid as claimed in Claim 20 or 21 comprising less than 0.1% wt of a mineral oil, synthetic hydrocarbon oil or mixture thereof.
- 3 15 23. An aqueous hydraulic fluid as claimed in any preceding claim which is substantially free of mineral oil, synthetic hydrocarbon oil and mixtures thereof.
- 3 24. An aqueous hydraulic fluid as claimed in any preceding claim substantially free of phosphorodithioates.
- 3 20 25. Use of an aqueous hydraulic fluid of any one of Claims 1 to 24 in an off-shore, mineral or mining drilling apparatus.